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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,412	04/09/2004	Anders Landin	5681-01601	8427

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MEYERTONS, HOOD, KIVLIN, KOWERT & GOETZEL, P.C.
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AUSTIN, TX 78701

EXAMINER

ELAND, SHAWN

ART UNIT	PAPER NUMBER
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2188

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/22/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/821,412

Applicant(s)

LANDIN ET AL.

Examiner

Shawn Eland

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2004, 01 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 07/11/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 38 are rejected under 35 U.S.C. 102(b) as being anticipated by ***Liencrees et al.*** (US 5,434,993).

In regards to claim 1, Liencrees teaches a node (***see element 20***) including an active device (***see element 21***), an interface to an inter-node network (***see element 31***), a memory (***see element 37***), and an address network coupling the active device, the interface, and the memory (***see element 33***); an additional node coupled to the node by the inter-node network (***see figure 3a; see column 6, lines 11 - 15***); wherein in response to receiving from the active device an address packet initiating a transaction to gain an access right to a coherency unit, the memory is configured to send a report corresponding to the address packet to the interface if the transaction cannot be satisfied within the node (***see column 7, "Read Transactions"***); wherein the interface is configured to ignore the address packet and to send a coherency message requesting the access right to the additional node via the inter-node network in response to the report (***see column 7, "Read Transactions"***).

In regards to claim 14, Liencrees teaches a plurality of devices including a memory (***see element 37***), an active device (***see element 21***), and an interface

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configured to send and receive coherency messages on an inter-node network coupling nodes in the multi-node computer system (**see element 31**); an address network configured to convey packets between the plurality of devices (**see element 33**); wherein in response to receiving from the active device an address packet initiating a transaction to gain an access right to a coherency unit, the memory is configured to send a report corresponding to the address packet to the interface if the transaction cannot be satisfied within the node (**see column 7, "Read Transactions"**); wherein the interface is configured to ignore the address packet and to send a coherency message requesting the access right on the inter-node network in response to the report (**see column 7, "Read Transactions"**).

In regards to claim 26, Liencre teaches an active device in the node initiating a transaction to gain an access right to a coherency unit by sending an address packet on an address network within the node (**see element 21**); an interface in the node ignoring the address packet (**see element 35**); in response to said sending the address packet, a memory in the node sending a report corresponding to the address packet to the interface if the transaction cannot be satisfied within the node (**see column 7, "Read Transactions"**); and in response to the report, the interface sending a coherency message to an additional interface in the additional node via the inter-node network, wherein the coherency message requests the access right to the coherency unit (**see column 7, "Read Transactions"**).

For claims 2, 15, & 27, Liencres teaches the node includes a data network coupling the active device, the interface, and the memory, and wherein the memory is configured to send the report to the interface in a data packet (**see element 33**).

For claims 3, 16, & 28, Liencres teaches the address packet is a read-to-own packet (**see column 7, "Read Transactions"**), the access right is a write access right (**see column 2, lines 4 – 12; "owning" the data will give your write access**), and wherein the memory is configured to send the report corresponding to the read-to-own packet to the interface if a global access state of the coherency unit in the node is any global access state other than a modified global access state (**see column 7, "Read Transactions"**).

For claims 4, 17, & 29, Liencres teaches wherein the node includes an additional active device (**see element 35**), wherein the additional active device is configured to transition a read access right to the coherency unit to an invalid access right upon receipt of the read-to-own packet (**see column 7, "Read Transactions"**).

For claims 5 & 18, Liencres teaches the address network is configured to convey the read-to-own packet in broadcast mode, wherein the active device is configured to gain an ownership responsibility for the coherency unit upon receipt of the read-to-own packet (**see column 4, lines 45 – 49**).

For claim 30, Liencres teaches the address network conveying the read-to-own packet in broadcast mode; and the active device gaining an ownership responsibility for the coherency unit upon receipt of the read-to-own packet (**see column 4, lines 45 - 49**).

For claim 6, Lienes teaches an additional interface included in the additional node is configured to receive the coherency message on the inter-node network, wherein the additional interface is configured to send a proxy address packet on an address network included in the additional node in response to the coherency message **(see column 7, "Read Transactions"; according to [00189] in the applicant's specification, proxy packets are packets sent by the interface 148; the processor cache controller 35 and the interface 148 are one and the same).**

For claim 31, Lienes teaches an additional interface included in the additional node receiving the coherency message on the inter-node network; and the additional interface sending a proxy address packet on an additional address network included in the additional node in response to the coherency message **(see column 7, "Read Transactions"; according to [00189] in the applicant's specification, proxy packets are packets sent by the interface 148; the processor cache controller 35 and the interface 148 are one and the same).**

For claims 7 & 19, Lienes teaches wherein in response to sending the coherency message, the interface is configured to receive an additional coherency message on the inter-node network; wherein in response to the additional coherency message, the interface is configured to send data corresponding to the coherency unit to the active device **(see column 8, lines 56 – 62).**

For claim 32, Lienes teaches the interface receiving an additional coherency message on the inter-node network, wherein the additional coherency message is responsive to the coherency message; in response to the additional coherency

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message, the interface sending data corresponding to the coherency unit to the active device (**see column 8, lines 56 – 62**).

For claims 8 & 20, Liencres teaches the active device is configured to gain the write access right to the coherency unit upon receipt of the data (**see column 7, “Write Transaction”**).

For claim 33, Liencres teaches the active device gaining the write access right to the coherency unit upon receipt of the data (**see column 7, “Write Transaction”**).

For claims 9 & 21, Liencres teaches the interface is further configured to send data corresponding to the coherency unit to the memory in response to the additional coherency message, wherein in response to the data, the memory is configured to update the global access state of the coherency unit in the node to the modified global access state (**see column 7, “Read Transactions”; see column 1, lines 64 – 68 through column 2, lines 1 – 12**).

For claim 34, Liencres teaches the interface sending data corresponding to the coherency unit to the memory in response to the additional coherency message; and in response to the data, the memory updating the global access state of the coherency unit in the node to the modified global access state (**see column 7, “Read Transactions”; see column 1, lines 64 – 68 through column 2, lines 1 – 12**).

For claims 10 & 22, Liencres teaches the memory is configured to send data corresponding to the coherency unit to the active device if the global access state is the modified state and if the memory has an ownership responsibility for the coherency unit,

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wherein the active device is configured to gain the write access right upon receipt of the data (**see column 7, "Read Transactions"**).

For claim 35, Liencres teaches the memory sending data corresponding to the coherency unit to the active device if the global access state is the modified state and if the memory has an ownership responsibility for the coherency unit; and the active device gaining the write access right upon receipt of the data (**see column 7, "Read Transactions"**).

For claims 11 & 23, Liencres teaches the address packet is a read-to-share packet (**see figure 1a**), the access right is a read access right (**see column 7, "Read Transactions"**), and wherein the memory is configured to send the report corresponding to the read-to-share packet to the interface if a global access state of the coherency unit in the node is not a modified global access state or a shared global access state (**see column 2, lines 15 – 29; the 2 nodes can share data as long as it is not modified**).

For claim 36, Liencres teaches the address packet is a read-to-share packet (**see figure 1a**), the access right is a read access right (**see column 7, "Read Transactions"**), and wherein said sending the report occurs if a global access state of the coherency unit in the node is not a modified global access state or a shared global access state (**see column 2, lines 15 – 29; the 2 nodes can share data as long as it is not modified**).

For claims 12 & 24, Liencres teaches the interface is configured to add a record corresponding to the report to an outstanding transaction queue in response to

receiving the report (**see column 9, lines 32 – 47**); wherein the interface is configured to add a record to the outstanding transaction queue in response to each address packet specifying a coherency unit that is not mapped by the memory (**see element 40**).

For claim 37, Liencres teaches the interface adding a record corresponding to the report to an outstanding transaction queue in response to receiving the report (**see column 9, lines 32 – 47**); and the interface adding a record to the outstanding transaction queue in response to each address packet specifying a coherency unit that is not mapped by the memory (**see element 40**).

For claims 13 & 25, Liencres teaches the interface is configured to send a corresponding coherency message on the inter-node network in response to each record in the outstanding transaction queue (**see element 40; see column 9, lines 32 – 47**).

For claim 38, Liencres teaches the interface sending a corresponding coherency message on the inter-node network in response to each record in the outstanding transaction queue (**see element 40; see column 9, lines 32 – 47**).

Examiner Information

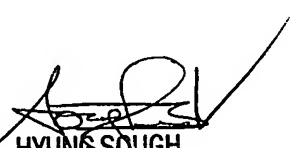
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shawn Eland whose telephone number is (571) 270-1029. The examiner can normally be reached on Monday - Thursday from 7:30am to 5:00pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung Sough, can be reached on (571) 272-4199. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SE

Shawn Eland
12/21/2006


HYUNG SOUGH
SUPERVISORY PATENT EXAMINER
12/21/06